

RESEARCH AND DEVELOPMENT, NEUCHATEL - QUARTERLY REPORT

DIVISION : QUALITY ASSURANCE + TECHNICAL SERVICES
SUBJECT TITLE : TOBACCO MONITORING
PERIOD COVERED : APRIL - JUNE 1990
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TOBACCO LOT ANALYSIS (TLA)

ASSISTANCE TO THE PM-EEC LEAF DEPARTMENT

In the context of project HUNT, whose scope is the determination of an optimum cutting width and length for tobacco, the following trials were carried out for the period reported:

- April 5, 1990 : Two trial versions and a control. For the three batches, cigarettes were produced with two firmness targets. These were 3mm/30s and 3.25mm/3min.
- June 6, 1990 : Five trial versions and a control. Two firmnesses for each batch as above.

All cigarettes (7 trial versions and 2 controls) were submitted to complete TLA analysis. In addition, several determinations of firmness and filling power were carried out on selected cigarettes. All the results were transmitted to the department concerned.

Plans

For the time being, no further trials are foreseen.

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ASSISTANCE TO THE PM-EEMA LEAF DEPARTMENT

In the context of project COURBET, two lots of Moroccan sun-cured tobacco strips were prepared at the R&D miniprimary. These two lots were from the same tobacco grade but different threshing processes were used to obtain the strips. The aim of this additional test was to compare the vertical threshing system (Hauni) used in Morocco with the conventional horizontal threshing plant in Fermenta-Payerne, in relation to machinability and tobacco yields.

Below are listed some of the parameters checked during the machinability trial, together with the results obtained for each of the two versions. Note that identical quantities of tobacco were used to perform this test (e.g., 42 kg) and the cigarette maker setting remained the same.

	<u>TOBACCO THRESHED IN MOROCCO</u>	<u>TOBACCO THRESHED FERMENTA</u>
Net tobacco weight (corrected to 12.5% OV and 3.00/30s)	757 mg	761 mg
Theoretical number of cigarettes which could be produced	55'250	54'540
Machine yield	74.6 %	87.4 %
Number of machine stops	17	9
Number of cigarettes produced	35'000	46'000

Even if the corrected net tobacco weights needed to obtain a given firmness were almost identical, the experiment showed that the tobacco threshed in Payerne had a slightly better machinability. This can be directly linked to the difference in stem content between the two versions (in strips: stem > 3/32" (OBS)): 0.72% for Fermenta vs 3.40; total stems: 6.98% for Fermenta vs 10.97).

All the results were transmitted to the department concerned.

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ASSISTANCE TO OTHER R&D SERVICES

1. Thirty-six tobacco samples were cut in order to enable further determination. This work was requested by the Microbiology group in the context of project EUROPE.
2. Cigarette rods containing Flue-cured and Oriental tobacco were prepared and sent to R&D Infestation Control (JMF). These cigarettes rods will be used in the context of a study on beetle control by deep-freezing.
3. In the context of project CLEVELAND, 2 samples (one before expansion and one expanded) were submitted to a complete TLA analysis.
4. In the context of project NILE, 2 samples (one before expansion and one expanded) were submitted to a complete TLA analysis.
5. In the context of project PISSARO, 3 samples (one before expansion and two expanded) were submitted to a complete TLA analysis.
6. In the context of project MARIA, 3 samples (one before expansion and two expanded) were submitted to a complete TLA analysis.
7. In the context of project SPENCER, 8 samples (2 before expansion and 6 expanded) were submitted to a complete TLA analysis.

TLA DATABASE

On the request of PME-LEAF Department, the following modifications were made to the TLA database for PME standard tobacco lots:

1. Oriental IA/IB/IC

Based on the affiliates' end of May inventory, a list of all Oriental lots bearing IA/IB/IC has been issued. This list showed the lot number, the new description (A/B/C) and the new TM code.

All lots IA/IB/IC not reported any more in the inventory were erased from the TLA database.

2. All Oriental, Burley and Flue-cured of the 86 crops and from selected origins have been erased from the database.

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3. All US-Burley and US-Flue-cured tobacco lots bearing packing form STS have been modified to show STR and linked to their corresponding TM codes.
4. LTR lots with the modified grammage have been linked to the new TM code 824.

Follow-up

A list of semifinished lots to be updated/deleted will be prepared by the Leaf Department and transmitted to the TLA group for action.

TLA EQUIPMENT

During the period reported, our TLA cutter (Messerli Intimus 007) had to be repaired five times, which led to losses of production capacity.

TLA LABORATORY PROCESSING CAPACITY BY MID-1990

The target assigned to R&D for TLA in 1990 is to process 1000 samples during the year. The situation after six months is shown here:

TLA SAMPLES THROUGHOUT

	Received y.t.d.	Processed y.t.d.	Finished y.t.d.	Stock
June 90	569	605	475	57
June 89	549	611	505	243
Dec. 89	887	<u>1054</u>	1050	93

In comparison with the same period of 1989, the number of samples in stock decreased significantly from 243 to 57. The number of samples received remains the same as well as the number of samples processed.

If everything continues like this, we will be in a position to fulfill the assigned target for TLA.

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TOBACCO QUALITY AUDIT (TQA)

The audit program consists of the physical analysis of offshore flue-cured and Burley tobacco strips for:

- strip-size distribution
- stem content and size
- oven volatiles
- net tobacco-weight

The objective is to provide the PME Leaf Buyers with the necessary information to identify tobacco processors in need of processing improvements, by comparing the obtained audit results of the different tobacco processors per country and setting specifications for the audited parameters by grademark, tobacco type and origin.

Status

The following tobacco purchases were audited and the respective audit reports transmitted to the PME Leaf Department:

1989	Germany	(1 FC)
1989	Hungary	(1 FC)

The following tobacco purchases were audited but the respective report has not yet been issued:

1989	Italy	(4 FC)
1989	France	(3 FC)
1989	Yugoslavia	(1 FC)
1989	China	(3 FC)
1989	Thailand	(4 BU)

Plans

Start the audit of the following countries:

Poland
India
Korea
Argentina

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